

Intervals

CHAPTER 6

Intervals

- ▶ **Defined as the musical space between 2 pitches**
- ▶ **Named according to size and quality**
- ▶ **To determine size, start counting on the starting pitch and count up or down to the other note. For example, C to A is a 6th**

Main Types of Intervals

- ▶ **Melodic Intervals—Distance between two successive notes in the same voice or part or melodic line**
- ▶ **Harmonic Intervals—formed between 2 pitches that occur simultaneously, for instance the distance between the bass and tenor line on the last note of a chorale**

Writing Intervals

- ▶ **For unisons and 2nds, the noteheads are written right beside each other with the lower note of the 2nd on the left (unless each note gets a separate stem—fig 6.2 c)**
- ▶ **For thirds and larger, align the two notes with one directly over the other**

Interval Landmarks

- ▶ **Identifying intervals quickly by eye will make life a lot easier.**
- ▶ **Visual landmarks can help speed up the process:**
 - ▶ **3rds—both notes on a line or on a space and the lines or spaces are adjacent**
 - ▶ **5ths--both notes on a line or on a space; skip a line or space between**
 - ▶ **7ths--both notes on a line or on a space; skip 2 lines or spaces between**
 - ▶ **2nds, 4ths, 6ths, and octaves—one will be on a line and the other on a space**

Simple vs. Compound Intervals

- ▶ **Simple intervals are an octave or less**
- ▶ **Compound intervals are more than one octave**
 - ▶ **(9th—octave plus a 2nd, 10th—octave plus a 3rd, etc.)**
- ▶ **To name compound intervals, add 7 to the simple interval**
- ▶ **Melodies generally use simple intervals, however writing with compound intervals is more characteristic in modern music**

Interval Quality

- ▶ **The number of half steps within an interval determine its quality. For instance C and E and C and Eb are both thirds, but there are 4 half steps between C and E whereas there are only 3 between C and Eb**
- ▶ **Counting half steps works well when determining the quality of smaller intervals:**
 - ▶ **Minor 2nd—1 half step**
 - ▶ **Major 2nd—2 half steps**
 - ▶ **Minor 3rd—3 half steps**
 - ▶ **Major 3rd—3 whole steps**
- ▶ **Major is abbreviated with a capital M and minor with a lowercase m**

Perfect Intervals

- ▶ **There is no such thing as a major unison, 4th, 5th, or octave. These intervals are considered perfect (abbreviate P).**
- ▶ **These intervals are the same in either a minor or major scale. This differs from 3rds, 6ths, and 7ths.**
- ▶ **The term perfect is used because historically these intervals were considered to be the “purest”**

Inverting Intervals

- ▶ **Pairs of intervals made from the same pitch classes with their orders reversed (like C to F and F to C) have an inverse relationship**
 - ▶ **Perfect intervals when inverted remain perfect...a P5 inverted will be a P4**
 - ▶ **Major intervals when inverted become minor...a M6 inverted will be a m3**
 - ▶ **Minor intervals when inverted become major...a m2 inverted will be a M7**
 - ▶ **Inversions always add up to 9.**

2nds, 3rds, and 4ths

- ▶ **Memorize all the “white key” intervals (ex.6.9). All other intervals may be calculated in relation to these.**
- ▶ **In a given interval, if the accidentals match (like F# and A#) it’s the same quality as the white key interval (like F and A).**
- ▶ **Major 2nds become minor by either lowering the top note (F to G \flat instead of F to G) or by raising the bottom note (F# to G instead of F to G)**
- ▶ **Minor 3rds become major 3rds by raising the top note (A to C# instead of A to C) or by lowering the bottom note (A \flat to C instead of A to C)**

Quick Rules

- ▶ **A major interval made one half step smaller becomes minor.**
- ▶ **A minor interval made one half step larger becomes major.**
- ▶ **Perfect intervals can't be major or minor.**
- ▶ **In a major key, 3rds above 1, 4, and 5 are Major and 3rds above 2, 3, 6, and 7 are minor. All 4ths are perfect except between 4 and 7.**

Writing Intervals

- ▶ **Start by writing the note heads for an interval of the correct size on the staff.**
- ▶ **Add a flat or sharp as needed to adjust the quality of the interval. DON'T ADJUST THE GIVEN NOTE!**
 - ▶ **Try It---Write a m3 above A.**
 - ▶ **Try It—Write a M3 below B.**
 - ▶ **Try it---Write a M3 above F#**
 - ▶ **Try it—Write a m3 below G#**
- ▶ **If spelling intervals when a key signature is present, make sure to consider that before adding accidentals.**

5ths, 6ths, and 7ths

- ▶ **You can figure out larger intervals by using their inversions. For instance, to figure out G to E, think about the interval from E to G. Since E to G is a m3, then G to E is a M6.**
- ▶ **Remember inversions add up to 9.**
- ▶ **Another way to identify 6ths and 7ths is to compare them with octaves**
 - ▶ **To spell a M6 or m6, think first of a P5 and make it larger**
 - ▶ **$M6 = P5 + M2$ OR $m6 = P5 + m2$**
 - ▶ **To spell a M7 or m7, think first of a P8 and make it smaller**
 - ▶ **$M7 = P8 - m2$ OR $m7 = P8 - M2$**

Semitones and Interval Size

NUMBER OF HALF-TONES	INTERVAL NAME	EXAMPLE	INVERSE
0	PERFECT UNISON	SAME NOTE	-
1	MINOR 2ND	C AND C#	MAJOR 7TH
2	MAJOR 2ND	E AND F#	MINOR 7TH
3	MINOR 3RD	A AND C	MAJOR 6TH
4	MAJOR 3RD	E AND G#	MINOR 6TH
5	PERFECT 4TH	B AND E	PERFECT 5TH
6	[SEE BELOW]	G AND C#	-
7	PERFECT 5TH	A \flat AND E \flat	PERFECT 4TH
8	MINOR 6TH	D AND B \flat	MAJOR 3RD
9	MAJOR 6TH	C AND A	MINOR 3RD
10	MINOR 7TH	B \flat AND A \flat	MAJOR 2ND
11	MAJOR 7TH	D \flat AND C	MINOR 2ND
12	PERFECT OCTAVE	F AND F	-

Augmented and Diminished Intervals

- ▶ **Augmented intervals are a half step larger than Major or Perfect intervals (like D to G#)**
- ▶ **Diminished intervals are a half step smaller than minor or Perfect intervals.**
- ▶ **Tritone---a diminished 5th or an augmented 4th**
 - ▶ **A4 and d5 are the only inversions that are the exact same size (same number of half steps)**
 - ▶ **splits the octave**
 - ▶ **A4 and d5 sound exactly the same unless heard in context, when the resolution can tell you which one it is (ex. 6.14 b)**

Augmented and Diminished Intervals

- ▶ **The tritone is the only augmented or diminished interval that is diatonic; all others require raising or lowering a scale degree by a half step**
- ▶ **Only a few are commonly encountered in modern music: A4, d5, A2, A6, d7**
- ▶ **To spell them, first spell the major or minor interval then adjust the quality (see chart on p 129)**
- ▶ **Doubly augmented or doubly diminished intervals are when major intervals are increased by a whole step (generally require a double sharp or a double flat)**

Enharmonically Equivalent Intervals

- ▶ **Intervals made of the same number of half steps but with different names, i.e. F to Ab (m3) or F to G# (A2)**
- ▶ **Similar to homonyms---here and hear—sound the same but have completely different meanings (how they function in musical context)**
- ▶ **Intervals are usually written with pitches from the major or minor key. This helps ensure easier readability for performers.**

Consonant and Dissonant Intervals

- ▶ **Consonant—stable, pleasing to the ear**
- ▶ **Dissonant—jarring, clashing, unstable**
- ▶ **These terms are relative.**
- ▶ **Generally, unisons, 3rds, 5ths, 6ths, and octaves are considered consonant (3rds and 6ths—imperfect consonances, unison, 5ths, and octaves—perfect consonances)**
- ▶ **Generally, 2nds and 7ths are considered dissonant as is any augmented or diminished interval**

Consonant and Dissonant Intervals

- ▶ **4ths are generally grouped with the consonant intervals, but Renaissance music used the harmonic 4th as a dissonance.**
- ▶ **Motion from a dissonant interval to a consonant one is called resolution.**

Interval Classes

- ▶ **Grouping intervals by how they sound; Example: minor 2nd, Major 7th, , and all the compound intervals based on the 2nd; also includes all intervals that are enharmonically equivalent**
- ▶ **Each interval class is named for the number of half steps in the smallest representative of the family**
- ▶ **See p 133**

Analyzing Intervals in Music

- ▶ **Consider both the key signature AND any accidentals**
- ▶ **Remember that accidentals generally remain in effect over the course of a measure (even longer if a tie is involved)**
- ▶ **Courtesy accidentals---accidentals not completely necessary that are there to help performers**

